

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously presented) A waveform equalizer comprising:
  - a calculation circuit; and
  - an all-pass filter that is connected to a stage preceding or following the calculation circuit, and that has a first conductance amplifier and a second conductance amplifier, wherein the all-pass filter is arranged to make a conductance of the second conductance amplifier variable and, by varying the conductance of the second conductance amplifier, adjusts and thereby corrects a group delay characteristic of the input signal while keeping a group delay of an input signal to the waveform equalizer in a direct-current range constant.
2. (Previously presented) The waveform equalizer of claim 1, wherein the all-pass filter further comprises:
  - a differentiator that is connected between input and output circuits of the first conductance amplifier and that includes a first capacitor and
  - a second capacitor that is connected between an input side of the first conductance amplifier and an output side of the second conductance amplifier.
3. (Previously presented) The waveform equalizer of claim 2 arranged so that
  - an input voltage to the all-pass filter is fed to one input terminal of the first conductance amplifier,
  - a voltage applied to an output terminal of the first conductance amplifier is fed to one

input terminal of the second conductance amplifier,  
a voltage applied to an output terminal of the second conductance amplifier, which voltage corresponds to an output voltage of the all-pass filter, is fed to another input terminal of the first conductance amplifier and to another input terminal of the second conductance amplifier, and  
the input voltage to the all-pass filter and the voltage applied to the output terminal of the first conductance amplifier have phases inverted relative to each other.

4. (Canceled)

5. (Previously presented) The waveform equalizer of claim 1, wherein the all-pass filter makes a conductance of the first conductance amplifier variable, and, by varying the conductance of the first conductance amplifier, varies a frequency range in which the group delay characteristic of the input signal is corrected.

6. (Previously presented) The waveform equalizer of claim 1, wherein the calculation circuit is arranged as an equi-ripple filter.

7. (Currently amended) An information reproducing apparatus comprising:

a detector arranged to detect information recorded on a recording medium and then to convert the detected information into an electrical signal;  
a waveform equalizer according to claim 1 and arranged to receive the electrical signal as the input signal; and  
a processing circuit arranged to process an output from the waveform equalizer.

8. (Previously presented) The waveform equalizer of claim 1 wherein the calculation circuit is arranged to adjust a gain for the input signal by varying an increasing factor for freely setting the gain in a predetermined frequency range for the input signal.
9. (Previously presented) The waveform equalizer of claim 1 wherein the all-pass filter is arranged to maintain a conductance of the first conductance amplifier substantially constant.